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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/655,498	09/05/2000	Donald C.D. Chang	PD-200114	8312

20991 7590 09/22/2003

HUGHES ELECTRONICS CORPORATION
PATENT DOCKET ADMINISTRATION
BLDG 001 M/S A109
P O BOX 956
EL SEGUNDO, CA 902450956

EXAMINER

VUONG, QUOCHIE B

ART UNIT	PAPER NUMBER
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2685

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DATE MAILED: 09/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/655,498

Applicant(s)

CHANG ET AL.

Examiner

Quochien B Vuong

Art Unit

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-80 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4,5,9-19 and 22-80 is/are allowed.
- 6) ☒ Claim(s) 1-3,6-8,20 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This action is in response to applicant's response filed on 06/25/03. Claims 1-80, are now pending in the present application. **This action is made final.**

Information Disclosure Statement

1. The information disclosure statements filed 06/25/03 been considered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-3, 6-8, 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seligsohn (WO 95/04407, cited by the examiner) in view of Ames (5,233,626, cited by applicant).

As to claims 1, 6, Seligsohn discloses a method for communicating between a user terminal 20, which has an antenna 7a, and multiple stratospheric transponder platforms (see the balloon platforms 28 in figure 1) comprising the step of maintaining the stratospheric transponder platforms in a substantially fixed position with respect to a user terminal antenna coupled to a user terminal (see page 7 lines 1-24). Seligsohn, however, fails to disclose communicating separate communications signals between the user terminal and at least two of the stratospheric transponder platforms concurrently as recited in the claim. Ames discloses a mobile communication system for providing communication separate communications signals between a user terminal 7 and a plurality of platforms (see numerals 3, 4, 6; and column 4 lines 1-13). Ames further discloses communicating between the user terminal and at least two of the stratospheric transponder platforms concurrently (see column 2 lines 20-39; column 4 lines 1-13, lines 51-56). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Ames to Seligsohn, in order to obtain a fade free communications between the user terminal and transmitting station (as suggested by Ames at column 2 lines 20-39).

As to claims 2, 7, 21, the combination of Seligsohn and Ames discloses that the user terminal communicates with the at least two of the stratospheric transponder platforms using the same frequency band (Ames employs spread spectrum

communication as set forth at column 4 lines 15-50).

As to claims 3, 8, the combination of Seligsohn and Ames discloses that the user terminal communicates with one of the at least two of the stratospheric transponder platforms at a first data rate and with another of the at least two of the stratospheric transponder platforms at a second data rate (see Ames, column 8 lines 17-39).

As to claim 20, it is rejected for the same reasons as set forth in claim 1 above. In addition, the above combination fails to disclose multiple beams at the user terminal as claimed. However, the examiner takes Official Notice that such multiple beams are known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above conventional multiple beams to the above combination, in order to improve signal reception at the user terminal by reducing signal interference.

Allowable Subject Matter

5. Claims 4-5, 9-19, 22-80 are allowed over the cited prior art.

Regarding claims 4-5, 9-19 and 22-24 the claims have been rewritten in independent form including all of the limitations of the base claim and any intervening claims, therefore, claims 4-5, 9-19, and 22-24 are allowable with the same reasons as set forth in the previous Office action (paper # 7).

Regarding the independent claims 25, 48, 61, and 78, it is well known in the art that a communication system and method comprising at least one gateway hub; an user terminal antenna with a reflector; and a plurality of transponder platforms arranged in a

substantially fixed formation relative to the user terminal antenna, for transmitting communications signals between the gateway hub and the user terminal antenna. However, the cited prior art fails to teach or suggest each of the plurality of transponder platforms has a platform orbit and a platform separation determined by a desired signal-to noise power ratio, and wherein the reflector has a diameter such that each of the plurality of transponder is substantially always near the peak of a respective beam of the reflector.

Response to Arguments

6. Applicant's arguments filed 06/25/03 have been fully considered but they are not persuasive.

Regarding claim 1, 6, and 20, Applicant argues that Ames fails to disclose "communicating separate communications signals between the user terminal and at least two of the stratospheric transponder platforms concurrently". However, the examiner does not agree with the Applicant. The Applicant's attention is directed to Ames (figure 1, and column 4, lines 1-13) which clearly discloses a mobile communication system for providing communication separate communications signals between a user terminal 7 and a plurality of platforms (reference numerals 3, 4, 6).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any response to this action should be mailed to:

Box A.F.

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

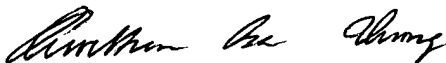
Hand-delivered responses should be brought to Crystal Park II, 2021

Crystal Drive, Arlington, VA 22202. Sixth Floor (Receptionist).

Any inquiry concerning this communication from the examiner should be directed to Quochien B. Vuong whose telephone number is (703) 306-4530. The examiner can normally be reached on Monday through Friday from 9:30 a.m. to 6:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached on (703) 305-4385.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service whose telephone number is (703) 306-0377.



QUOCHIEB VUONG
PATENT EXAMINER

Quochien B. Vuong
Sep. 17, 2003.